Perineal Richter's herniation following proctectomy

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ABSTRACT

In a Richter's hernia, only part of the anti-mesenteric border of the bowel is incarcerated within the underlying defect. We report three cases presenting between 18 days and 11 years following proctectomy. As all patients had functioning stomas a high index of suspicion is necessary to avoid a delay in diagnosis.

KEYWORDS

Perineal Richter's hernia – Proctectomy

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Introduction

The pouch of Douglas, named after the Scottish anatomist James Douglas (1675–1742) is a peritoneal reflection between the uterus and the rectum. As its depth varies it may be responsible for uncommon types of pelvic hernia. These are often seen in multiparous women and patients having had previous pelvic surgery. Such hernias are not to be confused with perineal hernias that occur through a defect in the pelvic floor musculature.

The diagnosis of a Richter's hernia, first described in 1785 by the German surgeon August Richter (1742–1812), still remains elusive. Inguinal and femoral hernial defects are the most common site of a Richter's hernia.¹ Over the last 24 years we (BMS) have managed three cases of pelvic Richter's herniation following proctectomy.

Case series

A 69-year-old man underwent right hemicolectomy and an ultra low Hartmann's for synchronous cancers (pT3 and pT2). A non-suction drain was placed below the pelvic peritoneum, which was closed with a continuous absorbable suture. He was discharged after 11 days but was readmitted three days later having lost a quantity of 'old' blood through the stapled anorectal junction. He was transfused and the presacral cavity washed out after computed tomography (CT) showed a residual clot. He had more bleeding four days later. A CT angiogram failed to demonstrate a bleeding point but did exhibit some fullness in the distal ileum (Fig 1). As there was now a further 'infected' haematoma, the pelvic cavity was again evacuated through the now open anorectal junction. At this planned examination under anaesthesia and change of pack, bile-stained fluid was noted and, at laparotomy, a Richter's hernia of the ileum through a small peritoneal defect was resected. There was no further bleeding and he was discharged 13 days later.

A 55-year-old man underwent an uneventful ultra low Hartmann's for a low rectal cancer (pT3) and then regular surveillance for six years. Ten years after resection he required drainage of sepsis on three separate occasions, related to the residual anorectal stump. One year later he presented with further sepsis, profound weight loss, anaemia and an oedematous buttock and thigh. His serum albumin was low (16 g/l; normal range 35–50 g/l) and a contrast study demonstrated fistulation to the pelvic small bowel with tracks running through the right gluteal muscles (Fig 2). After a period of enteral feeding, he underwent laparotomy and small bowel resection for fistulation through the pelvic peritoneum to the residual anorectal stump. His hospital stay was, not surprisingly, somewhat protracted but two years later he remains well.

A 77-year-old man underwent an uneventful ultra-low Hartmann's for a low rectal cancer (pT3). Two years later he presented with a six-week history of anal stump discharge. CT demonstrated small bowel fistulation to the residual anal stump that was resected uneventfully.

Discussion

After an abdominoperineal resection or proctectomy (with anorectal preservation), we all dislike seeing small bowel falling into the pelvis and, when feasible, the peritoneum is ideally closed. We do this routinely and indeed the paucity of similar cases in the literature supports this approach. Certainly, raw pelvic sidewalls attract small bowel and established small bowel obstruction is essentially a different problem altogether.

A Richter's hernia, of which there are four 'types',¹ can give rise to a variety of clinical situations, all of which are typified by the paucity of intestinal obstruction, as only a small portion of the anti-mesenteric small bowel is compromised. Indeed, our patients all had a functioning colostomy

Figure 1 Computed tomography angiogram showing some fullness in the distal ileum.

despite their established hernias. In our first case, this knuckle of anti-mesenteric ileum bled into the presacral space, leading to the pelvic haematoma. While per-anal blood loss after proctectomy is most likely from a sacral or pelvic sidewall vessel, a Richter's hernia, although

Figure 2 Contrast study showing fistulation to the pelvic small bowel with tracks running through the right gluteal muscles.

uncommon, needs to be considered. CT angiograms should be scrutinised with this in mind.

In those cases of Richter's hernia where a post-necrotic abscess develops there is often peritonitis but, again, in our cases that developed fistulation there was no such finding. Indeed, their enterocutaneous fistulae were all extra-peritoneal because of the previous proctectomy. While perineal and anorectal sepsis after proctectomy is most often associated with inflammatory bowel disease,² later sepsis, especially if recurrent (as in the second case), needs careful consideration. In hindsight and on review of previous CT in this patient, there was some air tracking towards the gluteal muscles but this was considered to be as a consequence of an earlier attempt to drain his anorectal sepsis.

In summary, closure of the pelvic peritoneum, where possible, avoids intestinal descent to the pelvic floor but a high index of suspicion is necessary when unusual pathology presents. With this in mind, modern imaging techniques still need to be scrutinised.

References

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